

SCDHEC *Earth Today*

Lesson Grade Level: 8

Lesson Title: Pollution can kill.

SC State Science Standard(s):

(II, A, 3, b) Explain some of the natural and human-made pressures that can cause extinction.

Segment Link:

In the first part when the people are discussing the damage caused by beach pollution.

Lesson Overview:

This lesson is designed to get the class to begin thinking of additional ways that pollution can harm animals, not just on the beach but also in other places. This can be taught either after watching the video as a follow-up lesson or prior to the video to get students to begin to think about pollution.

Background:

Pollution can take a variety of forms, from air and water pollution to light and sound pollution. While light pollution is only an inconvenience to star-gazers with telescopes, air, soil and water pollution can directly affect plant and animal life in an affected area. Pollution can foul the soil used by plants as a source of inorganic nutrients. It can damage water quality, making water unsafe for both plants and animals. Air pollution can cause breathing problems for animals and can contribute to acid rain, which damages plants. Sound pollution can cause harm to animals, such as bats and whales, that rely on sound. Sources of pollution can include solid waste from garbage being dumped in waterways and on the ground, as well as chemical pollutants such as oils, fertilizers, pesticides, cleaners and other hazardous materials that are washed down drains. Automobiles, industries and power plants also create pollution as a result of their emissions. Runoff is of particular significance as both a solid and chemical waste. When it rains, this type of waste may be washed into the nearest body of water, often a drinking source.

Lesson Plan:

1. Either before or after the video segment, begin a class discussion in which you ask the students to give examples of things that can cause pollution. You may want to begin by explaining how some of the things on the video are sources of pollution.
2. As each student contributes, have them explain how what they have mentioned is a source of pollution and how it might be harmful to different animals.
3. While students are listening, make a list on the board of all of the things mentioned. Allow time for the class to write down the list.
4. As follow-up, either have the students select one of the types of pollution or the teacher may assign one of the types of pollution and give each student a week to research in more detail how the pollution causes harm and what kinds of animals are affected in what ways.